Notice of Allowability	Application No.	Applicant(s)	
	10/027,390	CHOU, YUE-HONG	
	Examiner	Art Unit	
	Thu Nguyen	3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *Amendment on December 19, 2005 and the enclosed examiner's amendment*.

2. ☒ The allowed claim(s) is/are *1-2, 5-11, 13-15, 17-18, 20, 22-29, 31-33, 35 (now renumbered as claims 1-27)*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Daniel L Dawes on March 1, 2006.

In the claim:

Please replace all claims with the following:

1. (currently amended) An apparatus for communication to a network through a plurality of different external wireless data_comprising:

a communication component for uninterrupted communication to the network, the communication component comprising a plurality of wireless modems, each modem communicating with different ones of the external wireless data networks;

a plurality of objects;

a location circuit installed in each object which detects variable location information of the corresponding object in real-time;

a processor with memory installed in each object coupled to the location circuit, which processor receives the variable location information and activates responsive

functions according to the corresponding object's current location and which processor stores a plurality of historical_events of the corresponding object in a history file, of which at least some events are correlated with responsive functions automatically undertaken with respect to the corresponding object, the history file including events related solely to the location of the object without relationship to other ones of the plurality of objects, the history file being communicated to a network communication server connected to the network for processing the history file for data analysis or for selective intelligent action by the network communication server including communication by the network communication server outside the network; and

a communication circuit coupled to the communication component and installed in each object coupled to the processor in the same object to transmit without interruption by means of modem selection based on signal characteristics and to receive messages without interruption with the network communication server within the network and directly between other ones of the plurality of objects,

wherein the processor corresponding to a first object automatically activates selected functions controlling the first object in response to the variable location of a second object by means of communication without interruption through the network communication server or directly with the second object through one or more of the plurality of different external wireless data networks.

2. (currently amended) The apparatus of claim 1 in further combination with a satellite of a global positioning system and where the location circuit comprises a GPS receiver communicating with the satellite of the global positioning system and communicating with a terrestrial location detection network to determine the position of the object from a combination of signals from the global positioning system and terrestrial location detection network.

3. 4. (canceled).

5. (currently amended) The apparatus of claim 1 in further combination with a satellite of a global positioning system and wherein the location circuit comprises a GPS receiver communicating with the satellite of the global positioning system and an independent terrestrial location detection network in combination where the processor in each object controls the location circuit in the same object to first determine location of the corresponding object using the GPS receiver and then uses the independent terrestrial location detection network to determine location only if the GPS receiver fails to provide valid locational information.

6. (currently amended) The apparatus of claim 1 wherein the events of the history file stored by the processor in each object correlated to a contingent action

includes location, time of day, speed, and direction of the corresponding object for each event.

7. (currently amended) The apparatus of claim 6 wherein the events of the history file stored by the processor in each object include the type of the event categorized according to its correlated contingent action.

8. (currently amended) The apparatus of claim 7 wherein the events of the history file stored by the processor in each object include sent and received messages.

9. (currently amended) The apparatus of claim 1 in further combination with a remote server communicated through the network with one of the first and second objects wherein an event of the history file stored by the processor in each object is sent to the remote server and then cleared by the processor in the corresponding object from the memory in the corresponding object.

10. (currently amended) The apparatus of claim 9, wherein at least one of the objects is mobile, and wherein location information, and information relating to an event, are submitted from an object to the remote server or to other objects, and the information recorded in the mobile object are cleared by the processor in the corresponding object from the memory in the corresponding object on a periodic basis.

11. (currently amended) The apparatus of claim 9, wherein at least one of the objects is mobile, and wherein location information, and information relating to an event, are submitted from an object to the remote server or to other objects, and the information recorded in the mobile object are cleared by the processor in the corresponding object from the memory in the corresponding object at the time that event of the history file stored by the processor in each object is sent to the remote server.

12. (canceled)

13. (currently amended) The apparatus of claim 1 wherein the communication circuit in each object comprises a plurality of two-way wireless modems providing at least one independent terrestrial location detection signal, a satellite modem providing at least one GPS signal and a frequency adjustable transceiver in each object coupled to the wireless modems and satellite modem in the corresponding object, wherein the processor in each object is coupled to and controls the frequency adjustable transceiver in the corresponding object to select a best quality signal from the wireless modems in the corresponding object, but if the best quality signal from the wireless modems in the corresponding object fails to satisfy a predetermined threshold, then the processor in each object controls the frequency adjustable transceiver in the

corresponding object to select a quality signal from the satellite modem in the corresponding object.

14. (currently amended) The apparatus of claim 1 wherein the communication circuit comprises a two-way radio for communicating with each of the objects

wherein at least one object has locational information which is shared with the other objects,

wherein the processor in each object stores all valid location fixes and

wherein the location circuit in the corresponding object comprises a GPS engine board, a receiver for communication to the network coupled to the GPS engine board, and a position computation circuit coupled to the receiver, the GPS engine board, receiver and position computation circuit being coupled to the processor,

wherein the processor in each object controls the GPS engine board in the corresponding object to determine location of the corresponding object, but if the GPS engine board in the corresponding object fails to provide a valid location fix, the processor in the corresponding object then controls the position computation circuit in the corresponding object to provide a location by dead reckoning based on the last recorded valid location fix.

15. (previously presented) The apparatus of claim 14 where the position computation circuit in the each object comprises a gyro and a speed sensor to provide dead reckoning input data from which the processor in the corresponding object calculates a dead reckoning location.

16. (canceled)

17. (previously presented) The apparatus of claim 1 further comprising a plurality of input/output ports in the corresponding object coupled in circuit to the processor in each object and a plurality of external devices in the corresponding object coupled in circuit to the plurality of input/output ports in the object.

18. (currently amended) A method comprising:

communicating without interruption with a plurality of objects to a network through a plurality of wireless modems, each modem communicating with different ones of a plurality of external wireless data networks;

detecting variable location information of a plurality of objects in real-time in a corresponding location circuit in each object;

inputting the variable location information into a processor in each object with memory in the corresponding object coupled to the location circuit in the corresponding object;

storing a plurality of historical_events of each object in a history file in the memory in the corresponding object, including events related solely to the location of the object without relationship to other ones of the plurality of objects;

transmitting messages from an object without interruption by means of modem selection based on signal characteristics to a network communications server connected to the network and to other ones of the plurality of objects;

activating a responsive function in the object through a network according to the corresponding object's variable location, wherein the processor corresponding to the corresponding object automatically activates a selected responsive function to control the same object in response to the variable location of the other one of the objects, and

communicating without interruption the history file from the object to the network communication server for processing the history file for data analysis or for selective intelligent action by the network communication server including communication by the network communication server outside the network.

19. (cancelled)

20. (currently amended) The method of claim 18 in further combination with at least one satellite of a global positioning system and wherein detecting location information of at least one object in real-time comprises communicating a GPS receiver in the corresponding object with at least one satellite of the global positioning system, and

wherein detecting location information of at least one object in real-time comprises communicating the corresponding object with a terrestrial location detection network.

21. (canceled)

22. (currently amended) The method of claim 18 in further combination with a satellite of a global positioning system

wherein detecting location information of at least one object in real-time comprises communicating a GPS receiver in the corresponding object with the satellite of the global positioning system and an independent terrestrial location detection network in combination,

wherein communicating a GPS receiver in the corresponding object with at least one satellite of the global positioning system and the independent terrestrial location detection network in combination comprises

controlling the location circuit in the corresponding object to first determine location using the GPS receiver in the corresponding object and

then communicating the corresponding object with the independent terrestrial location detection network to determine location only if the GPS receiver in the corresponding object fails to provide valid locational information.

23. (currently amended) The method of claim 18 wherein storing events of the corresponding object in a history file comprises storing location, time of day, speed, and direction of the corresponding object for each event relating to the corresponding object.

24. (currently amended) The method of claim 23 wherein storing events of the corresponding object in a history file comprises storing the type of the event relating to the corresponding object.

25. (currently amended) The method of claim 24 wherein storing events of the corresponding object in a history file comprises storing sent and received messages relating to the corresponding object in the corresponding object.

26. (currently amended) The method of claim 18 further comprising communicating with a remote server through the network with one object wherein an event of the history file stored by the processor in the corresponding object is sent to the remote server and then cleared by the processor in the corresponding object from memory in the corresponding object.

27. (currently amended) The method of claim 26 wherein clearing the event of the history file in the corresponding object is performed on a periodic basis.

28. (currently amended) The method of claim 26 wherein clearing the event of the history file in the corresponding object is performed at the time that event of the history file stored by the processor in the corresponding object is sent to the remote server.

29. (currently amended) The method of claim 18 wherein at least one of the objects is moving.

30. (canceled)

31. (currently amended) The method of claim 18 wherein transmitting messages from the object comprises transmitting through a plurality of wireless modems, a satellite modem and a frequency adjustable transceiver in the corresponding object coupled to the wireless modems and satellite modem in the corresponding object, wherein the processor in the corresponding object is coupled to and controls the frequency adjustable transceiver in the corresponding object to select a best quality signal from the wireless modems in the corresponding object, but if the best quality signal from the wireless modems in the corresponding object fails to satisfy a predetermined threshold, then the processor in the corresponding object controls the

frequency adjustable transceiver in the corresponding object to select a quality signal from the satellite modem in the corresponding object.

32. (currently amended) The method of claim 18 further comprising

communicating with each of the objects by means of a two-way radio, wherein at least one of the objects has locational information stored therein which is communicated to another object, and

storing all valid location fixes in the corresponding object and

wherein detecting location information in the corresponding object comprises operating in each object a GPS engine board, a receiver for communication to the network coupled to the GPS engine board, and a position computation circuit coupled to the receiver in the corresponding object, the GPS engine board, receiver and position computation circuit being coupled in each object to the processor in the corresponding object, the processor in each object controlling the GPS engine board in the corresponding object to determine location of the corresponding object, but if the GPS engine board in the corresponding object fails to provide a valid location fix, the processor in the corresponding object then controlling the position computation circuit in the corresponding object to provide a location by dead reckoning based on the last recorded valid location fix.

33. (currently amended) The method of claim 32 wherein providing a location by dead reckoning in the corresponding object comprises:

using a gyro and a speed sensor in the corresponding object to provide dead reckoning input data and

calculating a dead reckoning location using the processor in the corresponding object.

34. (canceled)

35. (previously presented) The method of claim 18 further comprising communicating in each object through a plurality of input/output ports between the processor and a plurality of external devices coupled the plurality of input/output ports in the corresponding object.

36-63 (cancelled)

Reasons for Allowance

2. The following is an examiner's statement of reasons for allowance:

Prior arts of record do not disclose an apparatus and method for communication to a network server through a plurality of different external wireless data networks

disclosed in claim 1 and claim 18. In the apparatus, each object includes a memory for storing a history file including events related solely to the location of the object without relationship to other ones of the plurality of objects, the history file is communicated to the network communication server for data analysis or for selective intelligent action by the network communication server; the apparatus includes a communication component for uninterrupted communication to a network, the communication component comprises a plurality of wireless modems each of which communicates with different one of the external wireless data networks; a communication circuit in an object is coupled to the communication component for transmitting signals, the communication circuit selects appropriate modem for transmitting signals based on signal characteristics; by selecting the appropriate modem to transmit signals according to the signal characteristics, the communication circuit can transmit signals to the network server without interruption.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu Nguyen whose telephone number is (571) 272-6967. The examiner can normally be reached on T-F (7:30-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

March 2, 2006

THU V. NGUYEN
PRIMARY EXAMINER